

Recombinant Human PIKFYVE Protein, His-tagged

Cat. No. PIKFYVE-359H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PIKFYVE, transcript variant 4, fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-548 aa
Description	Phosphorylated derivatives of phosphatidylinositol (PtdIns) regulate cytoskeletal functions, membrane trafficking, and receptor signaling by recruiting protein complexes to cell- and endosomal-membranes. Humans have multiple PtdIns proteins that differ by the degree and position of phosphorylation of the inositol ring. This gene encodes an enzyme (PIKfyve; also known as phosphatidylinositol-3-phosphate 5-kinase type III or PIPKIII) that phosphorylates the D-5 position in PtdIns and phosphatidylinositol-3-phosphate (PtdIns3P) to make PtdIns5P and PtdIns(3,5)biphosphate. The D-5 position also can be phosphorylated by type I PtdIns4P-5-kinases (PIP5Ks) that are encoded by distinct genes and preferentially phosphorylate D-4 phosphorylated PtdIns. In contrast, PIKfyve preferentially phosphorylates D-3 phosphorylated PtdIns. In addition to being a lipid kinase, PIKfyve also has protein kinase activity. PIKfyve regulates endomembrane homeostasis and plays a role in the biogenesis of endosome carrier vesicles from early endosomes. Mutations in this gene cause corneal fleck dystrophy (CFD); an autosomal dominant disorder characterized by numerous small white flecks present in all layers of the corneal stroma. Histologically, these flecks appear to be keratocytes d

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istended with lipid and mucopolysaccharide filled intracytoplasmic vacuoles. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[

Form 25mM Tris, pH8.0, 150 mM NaCl, 10% glycerol, 1 % Sarkosyl.

Molecular Mass 62 kDa

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Concentration >50 ug/mL as determined by microplate BCA method

GENE INFORMATION

Gene Name PIKFYVE phosphoinositide kinase, FYVE finger containing [Homo sapiens]

Official Symbol PIKFYVE

Synonyms PIKFYVE; phosphoinositide kinase, FYVE finger containing; phosphatidylinositol 3 phosphate/phosphatidylinositol 5 kinase, type III , PIP5K3; 1-phosphatidylinositol 3-phosphate 5-kinase; KIAA0981; MGC40423; p235; PIKfyve; PIP5K; PIPkin-III; type III PIP kinase; phosphatidylinositol 3-phosphate 5-kinase; 1-phosphatidylinositol-3-phosphate 5-kinase; phosphatidylinositol 3-phosphate 5-kinase type III; phosphatidylinositol-3-phosphate/phosphatidylinositol 5-kinase, type III; CFD; FAB1; PIP5K3; FLJ37746;

Gene ID 200576

mRNA Refseq NM_001178000

Protein Refseq NP_001171471

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MIM	609414
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UniProt ID	Q9Y2I7
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